

# CITY OF HARRAH

## 2011 Water Quality Report

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### *Annual Drinking Water Quality Report*

We're pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. Our water source is groundwater from Garber Wellington.

This report shows our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact Jerry L. Chipman at 405-454-2951. The Association's address is P.O. Box 636, Harrah, Okla. 73045. We want our valued customers to be informed about their water utility.

City of Harrah routinely monitors for constituents in your drinking water according to Federal and state laws. The following table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2011 (Some of our data may be more than one year old because the state allows us to monitor for some contaminants less often than once per year.) We had a gross alpha violation from 2010 that ran to March 31, 2011. The well was not been used since 2009. In March of 2011 the well was officially take off line. \*\*

#### DEFINITIONS:

- *Maximum Contaminant Level (MCL)* - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- *Maximum Contaminant Level Goal (MCLG)* - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- *Treatment Technique (TT)* - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- *Action Level (AL)* - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- *Parts per million (ppm) or Milligrams per liter (mg/l)* - one part of contaminant per million parts of water.
- *Parts per billion (ppb) or Micrograms per liter (ug/l)* - one part of contaminant per billion parts of water.
- *Nephelometric Turbidity Unit (NTU)* - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- *Picocuries per liter (pCi/L)* - picocuries per liter is a measure of the radioactivity in water.
- *Non-Detects (ND)* - Laboratory analysis indicates that the constituent is not present.

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or are man-made. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.



# WATER QUALITY DATA

## MICROBIOLOGICAL CONTAMINANTS

Substance	MCL	Maximum Level Detected	EPA MCLG (EPA Goal)	2011 Violations	Sources of Contaminant
Total Coliform Bacteria	We had no positive coliform samples.	0% of monthly samples	0% of monthly samples testing positive for coliform	0	Naturally present in the environment

Substance	MCL	Positive Samples in 2008	EPA MCLG (EPA Goal)	2011 Violations	Sources of Contaminant
Fecal Coliform Bacteria and E. Coli	0 samples testing positive for fecal coliform and <u>E. Coli</u>	0 samples	0 samples testing positive for fecal coliform and <u>E. Coli</u>	0	Human and animal fecal waste

## RADIONUCLIDES

Substance	MCL	Maximum Level Detected	2011 Violations	Sources of Contaminant
Alpha Emitters	15 pCi/L	26 pCi/L	1	Geology 2010 RESULT
Beta/Photon Emitters	50 pCi/L	6.48 pCi/L	None	Geology
Radium 226	5 pCi/L	0.00 pCi/L	None	Geology

## INORGANIC CONTAMINANTS

Substance	MCL	Maximum Level Detected	EPA MCLG (EPA Goal)	2011 Violations	Sources of Contaminant
Barium	256 UG/L	179.4 UG/L	130UG/L-256UG/L	None	Drilling waste, natural erosion
Chromium	24 UG/L	20.5UG/L	17UG/L -24UG/L	None	Geology
Fluoride	.26 MG/L	0.175 MG/L	0.1MG/L - .26 MG/L	None 8/23/06 taken	Erosion of natural deposits: water additive which promotes strong teeth
Nitrate (measured as Nitrogen)	10 MG/L	.49 MG/L	.11 MG/L - .42 MG/L	None	Runoff from fertilizer use, septic tanks or sewage

Parameters Name	Cm	Value	Units	Analyzed	Method
Bromodichloro methane	<	2	UG/L	8/4/04	524.2
Bromoform	<	2	UG/L	8/0/04	524.2
Choloroform	<	2	UG/L	8/4/04	524.2



Didromochloro methane	<	2	UG/L	8/4/04	524.2
Total Triholamethane	<	6.6 UG/L	UG/L	2009	6.6UG/L -6.6UG/L
Total Haloacetic acids (HAA5)		1 UG/L	UG/L	2008	1UG/L -1UG/L

#### LEAD AND COPPER (Regulated at Customer Tap)

Substance	Action Level *	90% Sample Detected	2011 Violations	Sources of Contaminant
Lead	.015 ug/l	0.00mg/l	Retested on 6/30/10	Corrosion of home water pipes
Copper	1.3 mg/l	0.882 mg/l	retested on 6/30/10	Corrosion of home water pipes

\* Action Level – 90% of samples must be below this level.

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**Total Coliform.** Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. No Coliforms were found in our samples.

**Fecal coliform/E. Coli.** Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.

**Turbidity.** Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

**Copper.** Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

**Lead.** Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

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Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.